

**ABSTRACT**

video encoding device including a video input processor, for receiving said video signal, a global controller, for controlling the global operation of the video encoding device, a motion estimation processor, a digital signal processor and a bit-stream processor, wherein the global controller stores encodes commands received from a host interface thereby programming the video input processor, the motion estimation processor, the digital signal processor and the bit-stream processor, the video input processor receives and stores the video signal in an external memory unit, the motion estimation processor retrieves the video signal from the memory unit, generates motion analysis of the video signal, stores the motion analysis in the memory unit and provides the motion analysis to the digital signal processor, the digital signal processor processes the video signal according to the motion analysis, thereby producing an encoding commands sequence and encoded data, the bit-stream processor produces an encoded video signal according to the encoding command sequence and the encoded data.